4:Grajdanzev--8 [3] S-4 (no date) 1942 Formosans
116, 136

"The island is less rich in fauna. There are cattle and water buffalo, although it is impossible to say whether they are native or imported, but few horses; birds are relatively rare, and there is an abundance of snakes, of which thirteen species are poisonous. Mosquitoes are very prevalent, a mosquito net being a necessity. In spite of the efforts of the Japanese physicians, malaria continues to be a scourge of the island."

6: Kirchhoff--28-29 U-4 (no date) 1895 Formosans-1-2
116, 136

The fauna of Formosa, as far as mammals and birds are concerned, was thoroughly investigated by Robert Swinhoe, English consul in China, who died at an all too early age in 1877. Wallace has already made use of Swinhoe's results in studies of animal distribution. The fauna of Formosa especially, it appears to me, prove that this is among the detached islands. While it does possess a number of species found there alone (14 of the 35 mammals, 43 of the 128 species of birds), these, too, are as a rule closely related to species living on the Asiatic mainland or in the other islands of Southeast Asia, and a large number of species both of animals and plants is common to these lands and to Formosa. Yet one is struck by a phylogenenetically very interesting fact! the Formosan fauna reveal much closer relations to Hither and Farther India, the Malayan Archipelago and even to Japan, than to China, which lies so near. The black bear of Formosa is the Ursus tibetanus or at least its close relative; the prettily marked dove of the island, [29] Palumbus pulchricollis, is the wood dove of the Darjeeling region of the Himalayas. Of the felines, the island has Felis chinensis in common with China, but F. Viverrina (the Asiatic wildcat) in common with the Himalayas and Malacca, F. macroscelis with Siam and the Malayan Archipelago. The orange-colored tree civet cat (Helictis subaurantiaca), which is found only in Formosa, resembles the Himalayan species (H. nipalensis) more than the Chinese (H. moschata). Swinhoe's goat antelope (Nemorhoedus) has its nearest relatives in Sumatra and Japan. The Formosan deer, also called after its discoverer Swinhoe, most closely resembles the Schka deer

of Japan, called Cervus Sika by the zoologists, while the island's wild pig also resembles the Japanese one. The pretty little Formosan flying squirrel (Sciuropterus haleensis) also points to a Nepalese relationship, and the island ape, (Macacus cyclopsis) which is not unlike the orang-outang, and after which is named the steep coral cliff at the entrance to the bay of Ta-kaô harbor, is closer to the Indian M. rhesus than the M. sancti Johannis of South China. There are said to be no parrots on the island.

6: Kirchhoff--29 U-4 (no date) 1895 Formosans
116, 133, 136

After all this [MC: evidence of the similarity between the fauna of Formosa and the mainland] one will probably agree with Wallace's final conclusion that while Formosa is an island detached from China, this separation from the mainland must have occurred pretty early, though certainly during the Tertiary period. Further, not only did many species of animal on the island vary, the insular isolation preventing cross-fertilization with unaltered species, these varieties gradually becoming new species, but at the same time great changes were experienced in South China with respect to fauna, so that the relations to the Indian domain were more and more obliterated. It would be of value to subject this explanation to a more searching test, by means ,for example, of paleontological discoveries in the soil of southern China. The beetles and butterflies of For - mosa also diverge from those of the Chinese mainland, while they are related to and in part identical with those of Hainan and the Malayan island region; but these creatures might have been transferred by the typhoons that frequently blow over the island from a southerly direction (Hosie, p. 6).

9: Yamasaki--233 [3] N-5 (1896-1897) 1900 Formosans
116, 136

Our zoological knowledge of Taiwan is limited for the most part to the investigations of Swinhoe more than 30 years ago, for the Japanese accounts in this domain of natural history have not yet appeared. 31 species of mammals are known and about 150 bird species. The largest beast of prey is a black bear (Ursus Formosanus Sw.), which is close to the Japanese Kuma (Ursus Japonicus Schl.). In one village on the upper reaches of the Dakusui-kei I saw a chief wearing a cap made of the neck-piece of this bear. The fox (Canis vulpes) is also widespread, as in Japan. Flying foxes and bats, squirrels and other rodents are also found. In the woods there is a species of monkey (Innuus speciosus), and a species of wild boar (Sus taivanus) occur in large numbers. There are also many deer (Cervus Swinhoii), very similar to the Japanese Cervus sika, and also antelopes. The hides and antlers of the deer play a big part among the mountain dwellers as articles of barter. Of the tropical genus of the pangolin (Manis), the short-tailed Manis has been known for centuries.

9: Yamasaki--233 [5] N-5 (1896-1897) 1900 Formosans
116, 136, 262

Fish naturally play an important part in the diet, especially among the dwellers on the coast. Among the many species of the Taiwan Sea that are favored, the Harder (Mugil cephalus) is to be named before all others. In the winter months the inhabitants of the southwest coast are kept very busy catching it. It is about 3/4 m. long and not only its flesh but also its milt provide an article of diet esteemed by both Chinese and Japanese. In the markets at Tainan and Takao I saw the following species of fish also: Pagrus sp., Peristethus orientalis, Trigon pastinaka, Tachiurus lepturus, Thynnus pelamys (bonito), Trachurus sp., various mackerels, flat-fish, squid, etc. Among freshwater fish Cyprinus carpio (carp), Cerassius auratus (crucian), a species of trout (Plecoglossus altivelis) and Anguilla bostmiensis (eel) are the most important. There are also various species of valuable crustaceans. The king crab (Limulus) is also found in the sea near Taiwan, close to Kilung, especially, and its shell, which is used for ladles, can be bought everywhere. On the southeast coast I have often seen large turtles and their old shells are also found on the shore.

13: Anonymous--26 U-3 (no date) 1941 Formosans
116, 136

"The mammals so far discovered are more than 60 in number, while the species which appear to be peculiar to the island number 45, the majority of them being considered only varieties of the species found in the Oriental and Palaearctic regions. The species not found anywhere outside of the island are Formosa flying fox (Pteropus formosus), Formosa macaque (Paradoxuris larvatus), etc. The squamata are represented by a single ant-eater (Manis pentadoctyla).

Of birds we find more than 330 species and sub-species, of which 33 are common to the island, China and the Philippines, and about 87 belong to peculiar forms. One of the most notable species is the Mikado pheasant (Neocalophasis mikado) which lives in the central and eastern mountainous parts, 6,000-9,000 feet above the sea level. More than 65 species of reptiles and amphibians are known to inhabit the island, and very frequently to be met with is Trimeresurus gramineus, a poisonous snake, which is of an almost uniform green colour and widely distributed in tropical districts.

The insect fauna is exceedingly rich and varied. We are acquainted with about 319 forms of butterflies, most of which are known from the tropical countries.

Of freshwater bivalves and land snails we find such species as Corbicula maxima, C. fulmenea and Dolicheulota formosensis, Formosana taiwanica, Tortaxis matsudai, etc."

37: Steere--315-316 S-3 (1873-74?) 1875 Formosans
116, 131, 133

"The Island of Formosa lies about eighty miles from the main land of China, and is two hundred and fifty miles in length and eighty or ninety in breadth. Physically considered it is made up of a lofty range, or system of ranges, of mountains on the east-side, with a rocky and precipitous coast on the Pacific, and rich level plains on the-west, extending down to shallow seas in the Formosa channel, with immense sand flats, which are uncovered at low tide, and are apparently rapidly rising and adding to the cultivable lands. Several of the mountains are over twelve thousand feet in height, and the whole range from east of Takao for a hundred miles to the north must stand at near eleven thousand feet. In January, 1874, this whole extent was covered with snow, and it is probably so covered every winter. The highest mountains when visited were very steep, and were composed of slate rock with veins of quartz from an inch to several feet in thickness. The bases of the mountains and the foot hills are generally composed of coarse, friable sandstone, containing tertiary fossils. There are numerous plateaus among the foot hills and below them, evidently the remains of ancient plains that are now left far above the great plain below, the rivers having [316] cut down through to a lower level. Many of these plateaus are tilted out of level apparently by the rising of the mountain chain behind them, and the foot hills are evidently thrown up in this way, especially those east of Taiwanfu that were like great furrows in the general direction of the mountain range, the strata of sandstone of which they are composed being tilted at an angle of 20° , but growing greater toward the mountains."

37: Steere--319-320 S-3 (1873-74?) 1875 Formosans-1-3
116, 133, 361

"The first journey made was from Taiwanfu north following General Legendre's track to Kagee. From here we left his track on the left and turned toward the mountains. After one day's travel we entered the mountains by the bed of a stream, and then we traveled a day and a half through a mountainous country partly covered with timber, with here and there a Chinese village. This country seems to be a sort of neutral ground, and all were armed for the last six or eight miles before reaching the lake of Tsuisia. We passed through a wild country covered with timber, where there was said to be much danger from savages, and only large bands of armed men passed. We found a fresh water lake, surrounded by cultivated lands, and with three villages of Trin-whan. An old Chinaman, living upon a small island in the lake, owned most of the lands, and had begun the cultivation of tea. There was a very high and steep mountain at the distance of a few miles, directly to the east of the lake. The lake has several species of eels and of fish, the latter mostly of the Siluridal. From the lake, a day's march, most of the way through rough, mountainous country, brought us to the valley of Posia or Polisia. There were many beautiful tree ferns seen on this trip and camphor trees. The valley of Posia is six or seven miles in diameter, and is not all cultivated yet, as rice cannot be carried up such a distance to market, and the inhabitants only cultivate for their own use. There are several beautiful streams flowing through the valley, which, when they unite at the bottom, are well deserving the name of a river. The settlement of Posia seems to be very near the situation of a town on

Legendre's map called Ou-gitang. We inquired in vain for this town, and came to the conclusion that it was imaginary. Posia is surrounded on all sides by mountains that are covered with timber. We saw several species of oak growing here with a pine and a wild apple, which the Lek-whan gather and boil for eating. There is also much camphor-wood, but distance to market makes it impossible to use it as yet. From Posia we went a day and a half's journey almost due east up a roaring stream that forms part of the river at Posia. For the first ten or twelve miles the rock was mostly sandstone, and on the north side of the stream the timber was composed of dwarf pine and oak, with no undergrowth but coarse grass. On [320] the south side, the mountain, though just as steep, was covered with almost tropical vegetation, among which were tree ferns, wild plantains, rattans, etc. As we went farther up, the vegetation became more scanty on both sides. We found the savages cultivating the steep hill sides, the rock now being slate and quartz. At last we reached the water-shed, having followed the stream we were upon to its heads, while we could see the country descending on the east toward the Pacific. Most of the country here seemed to have been under cultivation at some time, and had grown up to a second growth of timber, twenty and thirty feet in height, of a species of alder, closely resembling the one called tag alder in the United States.

Upon our return to Posia we started out toward the coast with a large band of Lek-whans as guides and guard. We followed the river for the first day through a rough,

but rich and timbered region. At night we camped on the river, and near a fine valley, where there were still walls of houses and remains of ditches for irrigation, made by a body of Lek-whans, who settled there some twelve or fifteen years before. They were harassed so determinedly by the savages that they had to desert the settlement. Soon we broke out of the mountains, having left the river on the right. There were several guard-houses, with soldiers guarding the ravine we came down from inroads of savages. We hove here in sight of Changwha in the distance, and of the goat-plain, but we turned to the north and stopped at the Lek-whan town of Toasia. They have rich rice fields about here, and the country is very productive, but they are in debt to the Chinese. From Toasia, a day's journey took us to Laisia, part of the way being over a dry plain that had once been part of the great valley, but had been left high and dry by the streams cutting through to a lower level. Laisia lies in a beautiful valley among the hills and plateaus. There are two small villages, a few yards apart. On my journey toward Tamsni, I passed large quantities of camphor, most of it cut and lying on the ground, a short distance to the north of Laisia. The timber has been cut by the Chinese for the best part to be sawn into planks; the rest will lie until it is packed up and carried away to be distilled for the camphor. Between Laisia and Tamsni I passed many places fitted for the cultivation of tea. After reaching Tankiang, I followed General Legendre's track for the rest of the way."